DZHUNUSHBAYEV, A.

Vertical zonality of soils in mountains framing the Susamyr Valley.
Izv. AN Kir. SSR. Ser.biol.nauk 2 no.1:111-116 '60. (MIRA 13:11)
(SUSAMYR VALLEY--SOILS)

ASANBAYEV, O.; DZHUNUSHBAYEV, A.D., otv. red.; SORONBAYEVA, N.V., red.izd-va; POPOVA, M.G., tekhn. red.

[Erosion in the agricultural zone of the Dzhumgol Depression and measures for its control] Eroziia pochv zemledel'cheskoi zony Dzhumgal'skoi vpadiny i mery bor'by s nei. Frunze, Izd-vo AN Kirg.SSR, 1963. 56 p.   (MIRA 17:1)

KIBRIK, B.S.; DZHUNUSBEKOV, A.

Significance of drug resistance in the genesis of complica-
tions and exacerbations of bilateral tuberculous processes
following lobectomy. Zdrav. Kazakh. 22 no.8:11-14 '62

(MIRA 17:4)

1. Iz khirurgicheskoy kliniki (zav. - prof. L.K.Bogush) Insti-
tuta tuberkuleza Ministerstva zdravookhraneniya SSSR.

DZHUNUSBEKOV, A.

Single-stage bilateral partial resection of the lungs with subsequent thoracoplasty. Zdrav. Kazakh. 23 no.2:38-39'63.
(MIRA 16:10)

1. Iz khirurgicheskogo otdeleniya (zav. - prof. L.K.Bogush) TSentral'nogo instituta tuberkuleza.
(LUNGS— SURGERY)   (TUBERCULOSIS)

31301
S/124/61/000/010/036/056
D251/D301

AUTHORS: Basina, I.P. and Dzhunusov, K.G.

TITLE: On the combustion of carbon on the walls of a combustion chamber

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 10, 1961, 86,
               abstract 10 B612 (KazSSR Rylym Akad. Khabarlary,
               Izv. AN KazSSR, Ser. energ., 1960, no. 1 (17),
               30-37)

TEXT: A rough estimation is carried out of the thermal
stress of a combustion chamber according to a scheme which assumes
that the combustion of the bulk of the coke particles takes place
on the walls of the chamber. The stress obtained coincides satis-
factorily with actual conditions. The experimental investigation
of a suggested model of combustion was begun, and the combustion
of a carbon cylinder in relation to the velocity of a circulatory
stream was investigated. The combustion was controlled according

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On the combustion of carbon...

S/124/61/000/010/036/056
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D251/D301

to the composition of the gases and according to the loss in weight of the cylinder. The dependence of the speed of combustion of the carbon on the velocity of the stream, the structure of the cylinder walls and the geometrical parameters of the chamber is obtained. It is shown that the process of combustion takes place in the diffusion region. $\underline{/}$Abstracter's note: Complete translation$\underline{/}$

X

Card 2/2

DZHUNUSOV, M.S., prof.; SUZHIKOV, M.M., kand. filos. nauk; KSHIBEKOV,D.,
    kand. filos. nauk; SAPARGALIYEV, G., kand. yurid. nauk;
    UTAMBETOV, S., kand. filos. nauk; ROZENBERG, TS.R., red.;
    ROROKINA, Z.P., tekhn. red.

    [Laws governing the transition of peoples in formerly under-
    developed contries to socialism; based on the Kazakh people]
    O zakonomernostiakh perekhoda narodov ranee otstalykh stran k
    sotsializmu; na primere kazakhskogo naroda. Alma-Ata, Izd-vo
    Akad. nauk Kazakhskoi SSR, 1961. 225 p.   (MIRA 15:2)

    1. Akademiya nauk Kazakhskoy SSR. Institut filosofii prava.
       (Kazakhstan--Economic conditions) (Kazakhstan--History)

DZHUNUSOV, Maskhud Sadykovich, prof.; DAVYDOVA, Yu.F., red.; RAKITIN,
        I.T., tekhn. red.

    [Non capitalistic path of development]O nekapitalisticheskom
    puti razvitiia. Moskva, Izd-vo "Znanie," 1963. 31 p.
                                            (MIRA 16:3)

        (Underdeveloped areas)
        (Soviet Central Asia--Economic conditions)

DZHUPINA, B.I. (Novosibirskaya oblast'); SMIRTIN, V.P. (Novosibirskaya oblast'); GUBSKIY, Ya.P. (Novosibirskaya oblast')

Some characteristics of the epizooty of foot-and-mouth disease. Veterinariia 42 no.5:45-46 My '65.   (MIRA 18:6)

DZHUPINA, S.I.; SVIRIDOV, A.A.

Foot-and-mouth disease in moose under experimental conditions.
Veterinariia 42 no.5:47-48 My '65.   (MIRA 18:6)

1. Novosibirskaya nauchno-issledovatel'skaya veterinarnaya
stantsiya.

DZHUPINA, S.I.

Our experience in raising calves. Veterinariia 38 no.7:28-29
Jl '61. (MIRA 16:8)

1. Nachal'nik veterinarnogo otdela Novosibirskogo oblastnogc
sel'skokhozyaystvennogo upravleniya.
(Novosibirsk Province--Calves)

DZHUPINA, S.I.; SVIRIDOV, A.A., kand. veterinarnykh nauk

Role of cured animals in the spreading of foot-and-mouth disease.
Veterinariia 39 no.10:26-29 O '62.   (MIRA 16:6)

1. Novosibirskoye oblastnoye upravleniye proizvodstva i zagotovok
sel'skokhozyaystvennykh produktor (for Dzhupina). 2. Novosibir-
skaya nauchno-issledovatel'skaya veterinarnaya stantsiya (for
Sviridov).
          (Novosibirsk Province--Foot-and-mouth disease)

DZHUPINA, S.I.

Propagation of veterinary knowledge. Veterinariia 39 no.11:
16-18 N '62.   (MIRA 16:10)

1. Nachal'nik veterinarnogo otdela Novosibirskogo oblastnogo
upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh
produktov.

DZHURA, N. P.

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Foods

Use of dog rose for vitaminization of some food concentrates. I. A. Shakin, N. P. Dzhura, and M. M. Gol'dberg (Ukrain. Vitamin Ind. Trust, Kiev). Voprosy Pitaniya 12, No. 5, 73(1953).—A dry aq. ext. of the plant fruit and dry powder of the fruit were used for vitamin C enrichment of pea-soup preserves. The products showed a vitamin loss of 35-57% after 6-month storage.   G. M. Kosolapoff

DZHURABAYEV, Kukhraman Tursunovich; EPSHTEYN, D.I., red.

[Relationship between time norms and the size and re-currence of the lot of manufactured parts] Zavisimost' norm vremeni ot velichiny i povtoriaemosti partii deta-lei. Leningrad, 1965. 34 p.   (MIRA 18:11)

DZHURABEKOV, S.

Effect of the method of coal-mine field development on the
origination of spontaneous fires. Izv. AN Uz. SSR. Ser. tekh.
nauk 7 no.4:59-64 '63.   (MIRA 16:11)

1. Gornyy otdel AN UzSSR.

24.2120

AUTHORS: Arifov, U. A., Member of the AS Uzbekskaya SSR, Rakhimov, R. R., and Dzhurakulov, Kh.

TITLE: Secondary emission on bombardment of molybdenum with neutral argon atoms and with argon ions

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 2, 1962, 309-311

TEXT: An experimental arrangement including an ion source, a device for ion beam focusing, a charge-exchange chamber, and a measuring unit was used to investigate the secondary electron emission of Mo, produced by Ar atoms and ions of 0.2-2.0 kev. Neutral atoms of this energy were obtained by resonance charge exchange of Ar ions with natural Ar gas in the chamber. The intensity of the beam of neutral atoms was estimated from the measured value of ion-beam intensity before and after resonance charge exchange. The Ar ions remaining in the beam after resonance charge exchange were deflected by an electric field so that only neutral atoms struck the Mo target. Particular attention was paid to the purity of the target surface. Oscillograms of the volt-ampere characteristic of secondary emission show

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Secondary emission on bombardment ...   S/020/62/143/002/009/022
B104/B102

that a field-induced emission is present at low Ar ion energies but is
absent at the same energies of neutral atoms (Fig. 2). There are
2 figures and 4 references: 3 Soviet and 1 non-Soviet. The reference to
the English-language publication reads as follows: H. D. Hagstrum, Phys.
Rev., 104, 672 (1956).

ASSOCIATION: Institut yadernoy fiziki Akademii nauk UzSSR (Institute of
                Nuclear Physics of the Academy of Sciences Uzbekskaya SSR)

SUBMITTED: June 17, 1961

Fig. 2. Coefficient γ of secondary
electron emission.
Legend: energy E_0 of ions and atoms
(kev).
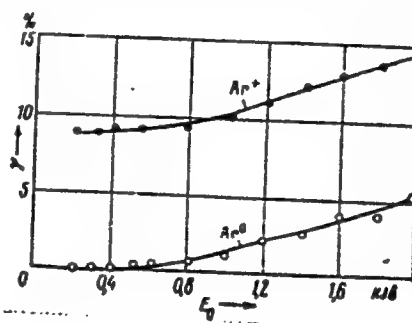
Card 2/2

ARIFOV, U.A.; RAKHIMOV, R.R.; DZHURAKULOV, Kh.

Secondary electron emission during bombardment of molybdenum by
He, Ne, and Ar atoms and ions. Radiotekh.i elektron. 8 no.2:
299-302 F '63.   (MIRA 16:2)
                        (Secondary electron emission)

ACCESSION NR: AP4017604   8/0109/64/009/002/0333/0338

AUTHOR: Rakhimov, R. R.; Dzhurakulov, Kh.

TITLE: Energy distribution of electrons dislodged from molybdenum by atoms and ions of neon

SOURCE: Radiotekhnika i elektronika, v. 9, no. 2, 1964, 333-338

TOPIC TAGS: electrons energy distribution, Mo electrons dislodging, electron dislodging by Ne atoms, electron dislodging by Ne ions

ABSTRACT: An experimental investigation of the energy distribution of electrons dislodged from carefully degassed Mo by Ne atoms and ions in an energy region of 0.4-5.0 kev is reported. It is found that: (1) The spectrum of electrons knocked-on by the potential energy of ions does not essentially change with the ion velocity; (2) The spectra of the electrons emitted by the kinetic energy of ions and atoms are almost identical; (3) With higher E_k, the maximum on the curve of

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ACCESSION NR: AP4017604

distribution of kinetic-emission electrons shifts slightly toward higher energies, and the importance of fast electrons in the total emission grows faster than that of slow electrons. "The authors are deeply grateful to U. A. Arifov for his constant attention to the work, and to A. Kh. Ayukhanov and E. S. Parilis for their valuable comments during the discussion." Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 15Dec62   DATE ACQ: 18Mar64   ENCL: 00

SUB CODE: NS, PH   NO REF SOV: 007   OTHER: 006

Card 2/2

DZHURAYEV, A.

BARINOVA, T.Ya.; DZHURAYEV, A.

Propagation of oscillations in elastic, solid, and liquid semispaces bordering along a plate. Uch. zap. Tadzh. un. 10:80-88 '57.
(Oscillations) (Differential equations, partial)   (MIRA 10:11)

DZHURAYEV, A.

Conversion of some two-dimensional singular integral
equations. Dokl. AN Tadzh. SSR 4 no.4:9-12 '61. (MIRA 15:1)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.
Predstavleno akademikom AN Tadzhikskoy SSR S.U. Umarovym.
(Integral equations)

L 13267-63   EWT(d)/FCC(w)/BDS   AFFTC   IJP(C)
S/044/63/000/003/004/047

AUTHOR: Dzhurayev, A.   51

TITLE: A nonlinear Hilbert problem for m pairs of generalized
analytic functions

PERIODICAL: Referativnyy zhurnal, Matematika, no. 3, 1963, 29, Abstract
3B137 (Tr. AN TadzhSSR, 109, 1961, 37-56). (Author's abstract
in Tadzhikistani.)

TEXT: For a system of $2m$ elliptic differential equations written in
complex form

$$\frac{\partial U_\alpha}{\partial z} = A(z)U_\alpha \qquad (\alpha = 1, 2, \ldots, m). \qquad (1)$$

the author solves the nonlinear boundary value problem

$$U_\alpha^+(t) = G_\alpha(t)U^-(t) + \lambda F_\alpha [t, U_1^+(t)\ldots$$

$$\ldots U_m^+(t), U_1^-(t), \ldots, U_m^-(t)]. \qquad (2)$$

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L 13267-63
A nonlinear Hilbert problem .....

S/044/63/000/003/004/047

First the linear boundary value problem with one pair of desired functions $u^+(t)$ = $G(t)u^-(t)$ is solved. This solution differs from the well known solution of L. G. Mikhaylov (Referativnyy zhurnal, Matematika, 1958, 3811) in the method for constructing the canonical function. In the nonlinear problem (2) the following restrictions are imposed on the given functions: $G_\alpha(t)$ must satisfy a Hölder condition and must not vanish. The F_α satisfy a Hölder condition for the variable t and a Lipschitz condition for the remaining 2m variables. The boundary value problem (2) is reduced to a system of 2m nonlinear singular integral equations. The solvability of (2) is proved for a sufficiently small value of the parameter λ on the basis of the Schauder principle of the existence of a fixed point.

[Abstracter's note: Complete translation.]

Card 2/2

34813

S/020/62/142/005/002/022
B112/B102

AUTHOR: Dzhuravev, A.

TITLE: General linear boundary value problem for the equation
$\Delta u + \lambda c(x,y)u = 0$

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 5, 1962, 994-997

TEXT: The boundary value problem

$$\Delta u + \lambda c(x,y)u = 0,$$

$$(L_n^0 + \lambda L_{n-1})u(\xi,\eta) = h(\xi,\eta) \quad \text{on } \Gamma,$$

$$L_n = \sum_{k=1}^{n} \sum_{l=0}^{k} a^{k-1,1}(\xi,\eta)\partial^k/\partial\xi^{k-1}\partial\eta^l$$

is investigated. L_n^0 is the main part of L_n. Conditions of solvability
are derived and the number of linearly independent solutions is

Card 1/2

General linear boundary value problem ...   S/020/62/142/005/002/022
                                             B112/B102

determined. The results depend essentially on the index
$\varkappa = (1/2\pi) \left\{ \arg \overline{a^* (t)} \right\}_\Gamma$ of the boundary value problem, where

$$a^*(t) = \sum_{l=0}^{n} i^l a^{n-l,l}(\xi, \eta)$$

is assumed to be different from zero. Reference is made to Ten Yen Cher
(Dissertatsiya Sibirsk. otd, AN SSSR, Novosibirsk, 1961). There are 9
references: 8 Soviet and 1 non-Soviet. The reference to the English-
language publication reads as follows: J. Tamarkin, Ann. Math., 2. Ser.,
28 (1927).

ASSOCIATION: Institut gidrodinamiki Sibirskogo otdeleniya Akademii nauk
               SSSR (Institute of Hydrodynamics of the Siberian Branch of
               the Academy of Sciences USSR)

PRESENTED: October 9, 1961, by I. N. Vekua, Academician

SUBMITTED: October 3, 1961
Card 2/2

16.2500

AUTHOR: Dzhurayev, A.

TITLE: Poincaré problem for a second-order elliptic equation with singular coefficients

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 5, 1962, 995-998

TEXT: The boundary value problem

$$\Delta u + (a/r)\partial u/\partial x + (b/r)\partial u/\partial y + (c/r^2)u = 0, \qquad (1')$$

$$\alpha u_x + \beta u_y = h \text{ on } \Gamma \qquad (2)$$

is investigated. Eq. (1) is assumed to be elliptic. This problem is reduced to a certain Riemann-Hilbert problem. A sufficient condition (inequality) is derived, under which problem $(1')$, (2) is solvable for the index

$$x = (1/2\pi)\left\{\arg \overline{\lambda(t)}\right\}_{\Gamma} \geqslant -1 \quad (\lambda(t) = \alpha(t) + i\beta(t)).$$

The number of linearly independent solutions of the corresponding homogeneous problem $(h \equiv 0)$ is shown to be equal to $2x + 4 - q$,

Card 1/2

Poincaré problem for a second- ...   S/020/62/146/005/001/011
                                                      B112/B186

$0 \leq q \leq 2$. For $x < -1$, the solvability of problem (1'), (2) depends on a finite number of necessary and sufficient conditions.

ASSOCIATION: Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR
              (Institute of Hydrodynamics of the Siberian Department
              AS USSR)

PRESENTED: April 23, 1962, by I. N. Vekua, Academician

SUBMITTED: April 6, 1962

Card 2/2

L 11173-63   EWT(d)/FCC(w)/BDS--AFFTC--IJP(C)

ACCESSION NR: AP3001137   S/0199/63/004/003/0539/0561

AUTHOR: Dzhurayev, A.

TITLE: General boundary problems for elliptic equations with nonanalytic coefficients

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 4, no. 3, 1963, 539-561

TOPIC TAGS: boundary problems, elliptic differential equations, analytic coefficients nonanalytic coefficients, Riemann-Hilbert problem

ABSTRACT: The present paper investigates boundary problems for differential equations of the elliptic type with two independent variables, the boundary conditions of which contain the most general linear relationship between the desired functions and their derivatives up to a certain finite order. The case of such equations containing analytic coefficients was first investigated by I.N.Vekua in his "Novyye metody resheniya ellipticheskikh uravneniy (New method for the solution of elliptic equations)," Gostekhizdat, Moscow, 1948. The present paper is based, to a degree, on the works of I.I.Danilyuk (Sib.matem.zh., v.III, no.1, 1962, 17-55), B.V.Boyarskiy (Akad.nauk SSSR, Dokl., v.124, no.1, 1959, 15-18) and Teu Yen Cher (Dissertation, Siberian Division, AS USSR, Novosibirsk, 1960), and

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L 11173-63
ACCESSION NR: AP3001137

employs substantially the apparatus of the theory of generalized analytic functions
set forth by I.N.Vekua in his "Obobshchennyye analiticheskiye funktsii (General-
ized analytic functions)," Fizmatgiz, Moscow, 1959. The paper comprises the
setting up of the general boundary problem for second-order equations and its
simplification, the reduction to the Riemann-Hilbert problem, the investigation
of the problem for a multiply-connected region, the generalized Neumann boundary
problem, the reduction to a bivariate integral Fredholm equation in the case of
a singly-connected region, the A-sub-lambda problem for a general elliptic equa-
tion, and the general boundary problem for a second-order system and an equation
of higher order. "In conclusion, I express my profound gratitude to my teacher,
Academician I.N.Vekua." There are 110 numbered equations.

ASSOCIATION: none

SUBMITTED: 22Nov61

SUB CODE: MM

DATE ACQD. 01Jul63

NO REF SOV: 014

ENCL: 00

OTHER: 001

Card 2/2   lb/wm

DZHURAYEV, A.

Spectrum of Neumann's generalized problem. Dokl. AN Tadzh. SSR 6
no.2:3-5 '63. (MIRA 17:4)

1. Otdel fiziki i matematiki AN Tadzhikskoy SSR. Predstavleno
akademikom AN Tadzhikskoy SSR S.U.Umarovym.

DZHURAYEV, A.

Studies one boundary value problem on a plane for elliptic equations.
Sib. mat. zhur. 6 no.3:584-593 My-Je '65.

(MIRA 18:8)

L 1992-66   EWT(d)   IJP(c)
ACCESSION NR: AP5023880

UR/0199/65/006/004/0798/0813
517.944/.947

AUTHOR: Dzhurayev, A.

TITLE: On fundamental boundary value problems for general elliptic systems of order two in two independent variables

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 6, no. 4, 1965, 798-813

TOPIC TAGS: elliptic differential equation, boundary value problem, analytic function

ABSTRACT: Studying systems of arbitrary numbers of (linear, second order) elliptic (but not strongly elliptic) partial differential equations in two independent variables, the author derives necessary and sufficient conditions for the normal solution of the Dirichlet and Poincare boundary value problems, as well as formulas for their index. His methods are based on the theory of generalized analytic functions developed by I. I. Vekua and his students. The results obtained extend those of B. V. Boyarskiy and N. E. Tovmasyan. A second order system, in matrix notation,

$$AU_{xx} + 2BU_{xy} + CU_{yy} + aU_x + bU_y + dU = 0, \qquad (1)$$

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L 1992-66
ACCESSION NR: AP5023880

O

where U is the unknown n-vector function, is elliptic in a region G
if the characteristic equation

$$\det (A\lambda^2 + 2B\lambda + C) = 0 \qquad (2)$$

has no real root in G. Under the hypothesis that all the roots of (2)
are simple, (1) is transformed into a first order system (of 2n
equations), which is proved to be equivalent (in some sense) to
system (1). The Poincare problem for (1) becomes the Riemann-Hilbert
problem for the first order system. The Dirichlet problem leads to a
system of integral equations of the Fredholm type. A method of
handling the case of repeated roots is outlined. In a final remark
it is pointed out that results of an earlier paper by the author
could be used to deal with higher order problems. Orig. art. has:
76 formulas.

ASSOCIATION: None.

SUBMITTED: 02Mar64   ENCL: 00   SUB CODE: MA

NR REF SOV: 012   OTHER: 001

Card 2/2

AUTHOR: Dzhurayev, A.
ORG: Physicotechnical Institute, Academy of Sciences Tadzhik SSR (Fiziko-
tekhnicheskiy institut AN TadzhSSR)
TITLE: Mutually conjugate boundary value problems for a system of three
composite-type, first-order equations
ABSTRACT: The article considers the composite-type system of first-order
partial differential equations

$$U_x - A U_y - B U = 0, \qquad\qquad (1)$$

Assuming matrix A to be continuously differentiable in domain $\widetilde{G}$ and considering
that $\operatorname{Im} \lambda_0(z) < 0$ in $\widetilde{G}$, system (1) can be reduced to the form

$$f_x - \lambda_1 f_y = \bar{A}_0 f + \operatorname{Re}(B_0 \varphi),$$
$$\varphi_x - \lambda_0 \varphi_y = \bar{A}_1 f + B_1 \varphi + C_1 \bar{\varphi}, \qquad (2)$$

System (2), in turn, can be reduced to the canonical form

$$f_\eta = A_0 f + \operatorname{Re}(B_0 \varphi), \qquad (3)$$
$$\varphi_\xi - \mu_0(\zeta) \varphi_\eta = A_1 f + B_1 \varphi + C_1 \bar{\varphi}.$$

The article poses the following problem (Problem A): Find continuously
differentiable (in domain G, the image of $\widetilde{G}$) solutions $W = (f, \varphi)$ to system
(3) which can be continuously extended onto boundary Γ and which satisfy the
boundary conditions:

ACC NR: AP7009578

$$B_0(W) \equiv \text{Re}\,\Delta(t_0)\varphi(t_0) = h^0(t_0), \quad t_0 \in \gamma;$$
$$B_1(W) \equiv f(t_0) + \text{Re}\,d(t_0)\varphi(t_0) = h^1(t), \quad t_0 \in \gamma;$$
$$B_2(W) \equiv a_0(t_0)f(t_0) + \text{Re}\,a^0(t_0)\varphi(t_0) = h_0(t_0), t_0 \in \Gamma - \gamma.$$

System (3) can be written in the complex form

$$D(W) \equiv W_{\bar{\xi}} - QW_\xi - A_0 W - B_0 \overline{W} = 0, \quad Q = \begin{pmatrix} 1 & 0 \\ 0 & \frac{\mu_0+i}{\mu_0-i} \end{pmatrix}. \quad (4)$$

Along with system (4), the article considers the formally conjugate system

$$D_*(V) \equiv -V_{\bar{\xi}} + (QV)_\xi - A_0'V - \overline{B_0}'\overline{V} = 0 \quad (5)$$

and poses the conjugate problem of finding continuously differentiable (in G) solutions $V = (ig, \psi)$ to system (5) which can be continuously extended onto boundary Γ.

The article proves that the conditions

$$\int_\gamma h^0(t)\left[\frac{t'(s)+q(t)\,\overline{t'(s)}}{2i\Delta(t)}\psi(t) - \frac{d(t)}{\Delta(t)}\xi'(s)g(t)\right]ds + \int_\gamma h'(t)\xi'(s)g(t)\,ds +$$
$$+ \int_{\Gamma-\gamma} h_0(t)\frac{t'(s)+q(t)\,\overline{t'(s)}}{2ia^0(t)}\psi(t)\,ds = 0$$

are necessary and sufficient for the solvability of Problem A.

This article was presented by Academician I. N. Vekua on 31 January, 1966.

Orig. art. has: 18 formulas. [JPRS: 40,100]

Card 2/2

DZHURAYEV, A.D.

Complications and side reactions in excretory urography. Urologiia
no.3:9-15 '62.
(MIRA 15:5)

1. Iz urologicheskoy kliniki (zav. - prof. A.Ya. Pytel') II
Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.
(URINARY ORGANS—RADIOGRAPHY)

DZHURAYEV, A. D.

"Aerosynoptic Conditions for the Appearance of Altocumulus Clouds with Subsidence Zones".
Trudy In-ta Matem. i Mekhan. AN Uz SSR, No. 12, pp 97-101, 1953.

Investigation of altocumulus clouds with subsidence zones observed 7 October 1949 in Verkhne-Chirchiskskaya Rayon is given. Analysis of the synotic maps and of aerological materials leads one to assert that the occurrence of collidal unstable clouds was dur to cold intrusion of earlier arctic air. Morphological configuration of the clouds confirms moreover the thermodynamic instability of these clouds, which is confirmed by the presence of an area of positive energy of instability on the emagram. It is proposed that the appearance of the indicated forms of clouds can serve as good forecasting criterion of reconstruction of the state of the atmosphere. (RZhGiol, No 11, 1955)

SO: Sum No 884, 9 Apr 1956

DZHURAYEV, A.Z.

DZHURAYEV, A.D.

Relation of interdiurnal pressure and temperature changes at
different altitudes over the Aral Sea. Trudy Inst.mat.i mekh
AN Uz.SSR no.14:109-113 '55.   (MIRA 8:8)
        (Aral Sea—Atmospheric pressure)
        (Aral Sea—Atmospheric temperature)

DZHURAYEV, A.Z.

DZHURAYEV, A.D.

Aerological characteristics of clouds in Central Asia according to the data of aircraft soundings. Trudy Sred.-Az.nauch.-issl.gidrometeor. inst. no.2:223-232 '59.   (MIRA 13:6)
                 (Soviet Central Asia—Clouds)

31677
S/648/61/000/004/001/002
A004/A101

3.5000

AUTHORS: Dzhurayev, A.D., Morozova, M.I.

TITLE: On the problem of determining the wind at a medium level

SOURCE: Tashkent, Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 4 (19), Moscow, 1961, Voprosy regional'noy sinoptiki, 92 - 98

TEXT: The authors investigate the possibility of using the wind at an altitude of 5 km instead of the mean wind calculated graphically. They present a formula for calculating the local changes of the relative velocity vortex at the mean level in the three-dimensional baroclinic model of the atmosphere and point out that O.A. Arnason [Ref. 3: Baroclinic model of the atmosphere applicable to the problem of numerical forecasting in three dimensions, p.I. Tellus, v. 4, no. 4, 1952] and U.G. Charnev [Ref. 4: The dynamical of long waves in s baroclinity westerly current. J. of. Met., v. 4, no. 5, 1947] have shown that the mean level can be identified with a surface level of 500 mbar. If there are no ballooning data available, the mean wind can be calculated by the method described by K.A. Vasyukov [Ref. 1: Analiz lokal'nykh izmeneniy davleniya i usloviy

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On the problem of determining ...

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S/648/61/000/004/001/002
A004/A101

tsiklogeneza v troposfere (Analysis of local changes of the pressure and cyclo-
genesis conditions in the troposphere) Trudy TsIP, no. 45 (72), 1956]. The
authors present a formula to determine the mean wind velocity for a layer limit-
ed by the isobaric surface of 1,000 and 300 mbar. A table shows the good coin-
cidence of the mean wind calculated by the Vasyukov method and obtained by bal-
looning. Although the results of this comparison are positive, the calculation
of the mean wind from the pressure topography map takes much time and, therefore,
the authors have carried out tests to confirm the assertion of Arnason that in-
stead of the mean wind, the wind from the AT_{500} surface, i.e. at a 5 km level,
can be used. With a number of comparative tables from measurements carried out
at the Aral Sea Station and the Tashkent Station, the authors present data on the
deviation of the mean wind from that at a 5 km level both as regards the wind
direction and velocity. The test data reveal that, as to velocity, the mean wind
coincides best with that at a 5 km level. As regards direction, the mean wind
comes nearest to that at a level of 5-6 km according to the data of the Aral Sea
Station and of 6 - 8 km according to the Tashkent station. The test results
make the conclusion apparent that the more to the south the weather station is
located and the higher its temperature background, the higher is the mean level.
Such an increase in the mean level towards the south approximately corresponds to

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A004/A101

a surface slope of 500 mbar. An analogous conclusion was obtained by Arnason who calculated that the mean wind level in latitude $30°$ North will be by 1 km higher than the mean wind level in latitude $70°$ North. Proceeding from the above-said, the authors point out that in the first formula for the local measurement of the velocity vortex it is possible to use with great certainty the AT_{500} wind while the calculation of the mean wind can be dispensed with. Thus the cumber-some calculation of the vortex changes in different points of the field can be considerably reduced by taking v (mean wind) direct from the AT_{500}^m map and v_m (thermal wind) from the OT_{1000}^{300} map. There are 11 tables and 5 references; 2 Soviet-bloc and 3 non-Soviet-bloc. The references to three English-language publications read as follows: O.A. Arnason. Baroclinic model of the atmosphere applicable to the problems of numerical forecasting in three dimensions, p.I. Tellus, v. 4, no. 4, 1952; J.G. Charnev. The dynamical of long waves in a baro-clinity westerly current. J.of.Met., v. 4, no. 5, 1947; Eliassen, A. Simplified dynamic models of the atmosphere designed for the purpose of numerical weather prediction. Tellus, v. 4, no. 3, 1952.

Card 3/3

DZHURAYEV, A.D.

Wind velocity variations during periods of less than one hour.
Trudy GGO no.107:128-131 '61.   (MIRA 14:10)
                        (Winds)

DZHURAYEV, A.D.; MOROZOVA, M.I.

Vertical currents in the intensive cyclogenesis of October 1-3,
1953. Izv.AN Uz.SSR.Ser.fiz.-mat.nauk 6 no.1:60-73 '62.
(MIRA 15:4)

1. Institut matematiki imeni V.I.Romanovskogo AN Uz3SR i
Sredneaziatskiy nauchnyy institut gidrometeorologicheskiy institut.
        (Cyclones)   (Meteorology—Observations)

DZHORDZHIO, V.; PETROSYANTS, M.; ROMANOV, N.; DZHURAYEV, A.;
        BURKOVA, M.; NEUSHKIN, A.

        Prognostic weather charts. Grazhd. av. 19 no.4:21 Ap '62.
                                                    (MIRA 15:5)
                (Meteorology in aeronautics)

DZHURAYEV, A.D.

Relationship between precipitation and the height of the lower
boundary of clouds. Trudy Sred.-Az.nauch.-issl.gidrometeor. inst.
no. 8:12-16 '63.   (MIRA 17:5)

ACCESSION NR: AT4030523   S/0000/63/000/000/0004/0024

AUTHOR: Burkova, M. V.; Dzhordzhio, V. A.; Dzhurayev, A. D.; Neushkin, A. I.;
Petrosyants, M. A.; Romanov, N. N.; Emm, Z. G.

TITLE: Some results of a study of turbulence experienced by TU-104 aircraft along
the Tashkent-Moscow air route

SOURCE: Nauchnaya konferentsiya po aviatsionnoy meteorologii, Moscow, 1960.
Materialy*. Moscow, Gidrometeoizdat, 1963, 4-24

TOPIC TAGS: meteorology, aircraft turbulence, atmospheric turbulence, tropopause,
aviation meteorology

ABSTRACT: A study of aircraft turbulence along the Tashkent-Moscow air route was
made on the basis of reports from crews of TU-104 aircraft during the years 1959
and 1960. The report is limited to the period autumn and early winter of 1959 and
the spring of 1960 (248 flights, 597, 519 km). The most important content of the
paper is the inclusion of a scale of intensity of turbulence for the TU-104 (8-unit
scale), a morphological classification of turbulence for the TU-104 (10 classes)
and a genetic classification of turbulence for the TU-104 (14 classes, with many
sub-classes). Each of the units of the morphological and genetic classifications
are described fully. It is emphasized that the character of turbulence experienced

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ACCESSION NR: AT4030523

is dependent on the type of aircraft; for example, the engines of the TU-104 are close together and the engines of the IL-18 are far apart, so that none of the classifications appropriate for TU-104 turbulence are applicable to the IL-18 or other aircraft. It is stressed that "lower" turbulence differs sharply from "upper" turbulence (8-10 km and above). Lower turbulence almost always is the result of the simultaneous effect of a number of factors and is chaotic; chaotic turbulence is relatively rare at the upper levels. Upper turbulence is characterized by patchiness, vertical stratification and anisotropy, all of which are discussed. The aeroclimatography along the air route was studied by construction of vertical profiles (248) on which were plotted all vertical sounding data from stations along the route and 200 km to either side, navigator's reports on temperature, wind and special phenomena, and other data. These were supplemented by an appropriate AT 300 chart, a tropopause chart and maximum wind chart. It is noted that there are areas with more frequent or more intense turbulence (three such regions are listed); this contradicts Farthing's conclusions (Trans World Airlines, Met. Section, Kansas City, 1959) that such regions do not exist. The most dangerous synoptic situations are discussed. Turbulence at the tropopause is rarely strong; turbulence under the tropopause is encountered more frequently than above it. Turbulence conditions in various cloud genera and species are described. Orig. art. has: 3 tables.

Card 2/3

ACCESSION NR: AT4030523

SUBMITTED: 18Feb63

SUB CODE: AS

DATE ACQ: 17Apr64

NO REF SOV: 016

ENCL: 00

OTHER: 013

Card 3/3

ACCESSION NR: AT4030528   S/0000/63/000/000/0065/0071

AUTHOR: Bugayeva, I. V.; Burkova, M. V.; Dzhordzhio, V. A.; Dzhurayev, A. D.;
Neushkin, A. I.; Ovcharenko, V. P.; Petrosyants, M. A.; Romanov, N. N.; Kan, Z. G.

TITLE: On the upper cloud boundary along Tashkent-Moscow route according to obser-
vations from TU-104 passenger aircraft

SOURCE: Nauchnaya konferentsiya po aviatsionnoy meteorologii. Moscow, 1960.
Materialy*. Moscow, Gidrometeoizdat, 1963, 65-71

TOPIC TAGS: TU-104 aircraft, cloud boundary, flight condition, troposphere, strat-
osphere, jet stream

ABSTRACT: This paper is one of 13 previously unpublished reports of the 40 papers
given at the Nauchnaya konferentsiya po voprosam aviatsionnoy meteorologii (scien-
tific conference on problems of aviation meteorology) that was held in June and July
of 1960 in Moscow at the Glavnoye upravleniye gidrometeorologicheskoy sluzhby* SSSR.
In this paper the authors present some visual weather observations made from aircraft
and the results of their processing. Reports from TU-104 crews along the Tashkent-
Moscow route, made during the period of 16 Sep 58 through 31 Dec 59, and airborne
observations of a group of Tashkent meteorologists, made in two series of flights

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ACCESSION NR: AT4030528

(Oct-Dec 59 and Mar-Apr 60) in TU-104 aircraft along the same route, served as the raw data. Results of these observations are given in graphs. 248 research flights made in the warm half of the year, have shown a principle difference between the frontal stratonimbus clouds and the same clouds in extrafrontal zones, located in the central, western, and northwestern regions of deep seated, well developed cyclones. This difference is shown. Frontal stratonimbus clouds have an upper boundary of 2 to 3 times greater than stratonimbus clouds in central, western and especially north-western sections of deep seated, well developed cyclones. In these portions of the cyclones the ascending currents are caused by friction convergence which in any stage of the cyclone do not extend high enough and even at levels of from 2 to 4 km alternate with intense decending movements. Orig. art. has 2 figures.

ASSOCIATION: none

SUBMITTED: 18Feb63   DATE ACQ: 17Apr64   ENCL: 00

SUB CODE: AS   NO REF SOV: 000   OTHER: 000

Card 2/2

L 45512-66   EWT(d)/EWT(m)/EWP(h)/T-2/EWP(w)   IJP(c)   EM

ACC NR: AT6018248   SOURCE CODE: UR/3021/64/000/259/0163/0167

AUTHORS: Burkova, M. V.; Gerasina, S. A.; Dzhordzhio, V. A.; Dzhurayev, A. D.; Kem, L. I.; Neushkin, A. I.; Petrosyants, M. A.; Ubaydullayeva, I.; Romanov, N. N.

ORG: none

TITLE: Some statistical data on the bumps of the TU-104 aircraft

SOURCE: Tashkent. Universitet. Nauchnyye trudy, no. 259. Fizicheskiye nauki, no. 23, 1964. Fizika atmosfery i aviatsionnaya meteorologiya (Physics of the atmosphere and aviation meteorology), 163-167

TOPIC TAGS: aircraft, wind direction, wind velocity, statistic analysis, meteorologic observation / TU-104 aircraft, IL-18 aircraft

ABSTRACT: The results of about 900 special research flights with TU-104 aircraft and a smaller number of flights with IL-18 aircraft are given. The routes were Tashkent to Novosibirsk, Tashkent to Moscow, and Tashkent to Simferopol'. Three problems are considered: the flight conditions as a function of wind velocity, of wind direction, and of the angle between the fuselage of the aircraft and the wind vector. It is found that there is no statistical confirmation for the hypothesis that there is a genetic relationship between a strong bump and zones of moderate gales. In the zones of winds with a southern component, a strong bump is observed

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L 45512-66

ACC NR: AT6018248

approximately five times more frequently than in winds with a northern component. The popular hypothesis that the probability of encountering a bump zone is greater in flights where the angles to the air stream are great is refuted by the data obtained. Orig. art. has: 3 tables.

SUB CODE: 04, 01/ SUBM DATE: none/ ORIG REF: 001

hs

Card 2/2

L 44144-66   EWT(d)/EWT(l)/EWT(m)/T-2/EWP(h)   GW

| ACC NR: AT6018249 | SOURCE CODE: UR/3021/64/000/259/0176/0179 |

AUTHORS: Bilyalov, R.; Burkova, M. V.; Dzhordzhio, V. A.; Dzhurayev, A. D.; Levina, P. Z.; Myalkovskaya, N. M.; Neushkin, A. I.; Petrosyants, M. A.; Syvazova, I. L.; Romanov, N. N.

55

B+1

ORG: none

TITLE: Proposal for the construction of a map AT_{250} to improve the meteorological service for aircraft TU-104

SOURCE: Tashkent. Universitet. Nauchnyye trudy, no. 259. Fizicheskiye nauki, no. 23, 1964. Fizika atmosfery i aviatsionnaya meteorologiya (Physics of the atmosphere and aviation meteorology), 176-179

TOPIC TAGS: atmosphere, weather map, weather forecasting, aircraft, meteorology

ABSTRACT: The necessity for constructing an AT_{250} map is pointed out. The authors note that in the majority of cases, the flight height of the TU-104 aircraft is 10.5 km, a height that corresponds to an absolute topography of 250 millibars. It is argued that very little additional effort would be called for from existing weather forecasting stations for the construction of the AT_{250} weather maps since these stations already routinely broadcast information on AT_{200} and AT_{300}. Examples of

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L 44144-66

ACC NR: AT6018249

AT_{250} maps are given. The maps were constructed by interpolating between the data for AT_{300} and AT_{200} (see Fig. 1).
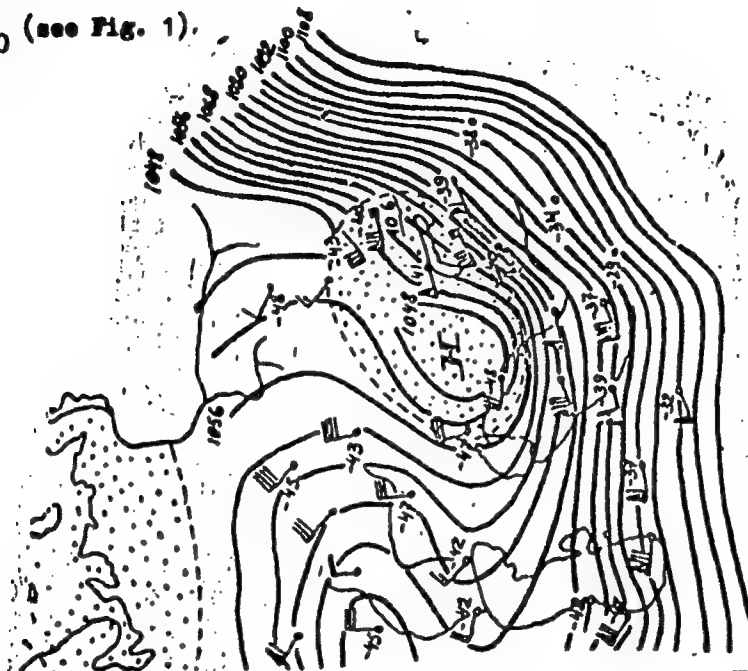
Fig. 1. Map AT_{250} at 3 p.m. on 3 August 1960. Dotted region indicates the stratospheric zone. Squares indicate reports from aircraft crews.
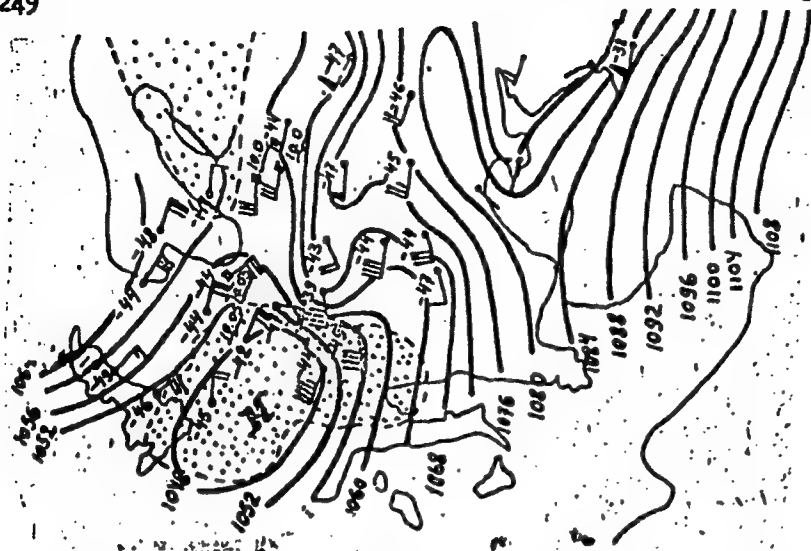
Card 2/3

To Card 3/3

It is mentioned that the World Meteorological Organization also recommends a regular construction of AT_{250} maps. Orig. art. has: 2 graphs.

SUB CODE: 04/ SUBM DATE: none

Card 3/3

L 45507-66   EWT(1)   GW

ACC NR: AT6018250   SOURCE CODE: UR/3021/64/000/259/0180/0186

AUTHORS: Burkova, M. V.; Dzhordzhio, V. A.; Dzhurayev, A. D.; Neushkin, A. I.;
Petrosyants, M. A.; Romanov, N. N.

ORG: none

TITLE: A proposal for a multi-route system of aircraft flights with the use of jet
streams

SOURCE: Tashkent, Universitet. Nauchnyye trudy, no. 259. Fizicheskiye nauki, no.
23, 1964. Fizika atmosfery i aviatsionnaya meteorologiya (Physics of the atmosphere
and aviation meteorology), 180-186

TOPIC TAGS: jet stream, meteorologic observation, weather map, aircraft, topography,
isobar / TU-104 aircraft

ABSTRACT: A multi-route system for aircraft flights with the use of jet streams
is proposed on the basis of meteorologic observations on the Tashkent-Vnukovo route
and other routes. The work was prompted by observations of the great effect of jet
streams on the flying time between various points. Maps showing the synoptic situa-
tion at certain times on various routes are given as examples. The system of multi-
route flights proposes the use of 5--7 standard routes for each direction, expan-
sion of the ground radar networks, and the creation of a control system. Possible
objections to the plan and flight safety in jet strams are discussed briefly. Orig.
art. has: 5 maps.
Card 1/1 SUB CODE: 04, 01/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 002

L 16918-66   EWT(1)/FCC   GW

ACC NR: AT6004106   SOURCE CODE: UR/2648/65/000/023/0003/0022

AUTHOR: Dzhurayev, A. D.   20

ORG: Central Asian Scientific Research Hydrometeorological Institute, Tashkent   b+1
(Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut)

TITLE: Cloud resources of the Chirchik river basin

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy
gidrometeorologicheskiy institut. Trudy, no. 23 (38), 1965. Voprosy
aerologii subtropicheskikh i tropicheskikh rayonov (Problems in the
aerology of subtropical and tropical regions), 3-22

TOPIC TAGS: climate, climate control, cloud formation, atmospheric
humidity, atmospheric precipitation, atmospheric cloud

ABSTRACT: Meteorological data for the months of October-April of
1950-61 were examined to establish the distribution of different types
of clouds during years of high, average and sparse precipitation, and
the aerological characteristics of the clouds were analysed--the
vertical thickness, the height, temperature and relative humidity at
the upper and lower limits. It was concluded that additional precipi-
tation could be obtained during the cold half of the year by cloud
modification from the cloud resources in the Pskem river basin.

Card 1/2   2

L 16918-66

ACC NR: AT6004106　　　　　　　　　　　　　　　　　　　　　　　　　*0*

Systematic cloud modification of stratocumulus formations and intensi-
fying precipitation from nimbostratus-altostratus clouds could increase
precipitation by 15%. Orig. art. has: 26 tables and 2 equations.

SUB CODE: 04/ SUBM DATE: 00/ ORIG REF: 008

Card 2/2

DZHURAYEV, A.D.; MULYUKOV, A.

Characteristic of stratiform clouds producing and not producing
precipitation. Trudy Sred.-Az. nauch.-issl. gidrometeor. no.23:
23-28 '65.   (MIRA 19:2)

DZHURAYEV, Akhmadzhan; BONDARENKO, M.N., red.; BABAKHANOV, A., tekhn.
red.

[Beacon light of Yangier District] Maiak IAngierskogo raiona.
Tashkent, Gosizdat UzSSR, 1962. 56 p.   (MIRA 16:5)
      (Uzbekistan—Agriculture)

Dzhurayev. Khusain

85-10-25/35

AUTHOR: Dzhurayev, Khusain

TITLE: Thanks to the Native Soviet Government (Spasibo
              rodnoy sovetskoy vlasti)

PERIODICAL: Kryl'ya Rodiny, 1957, Nr 10, p. 26 (USSR)

ABSTRACT: This is a personal letter of a young high school student
              from a small locality in the Tadzhikskaya SSR, in which
              he describes the progress made in his native place under
              the Soviet regime. He is an aircraft modeller and took
              part this year in the All-Union aircraft model competition
              in Moskva. There is a photo of the author.

AVAILABLE: Library of Congress

Card 1/1

DZHURAYEV   K. Sh

Name: DZHURAYEV, K. Sh.

Dissertation: The city of Stalinabad; a study in its economic geography

Degree: Cand Geog Sci

DEFENDED AT
~~Affiliation~~: Inst of Geography Acad Sci USSR

PUBLICATION
~~Defense Date~~, Place: 1956, Moscow

Source: Knizhnaya Letopis', No 52, 1956

DZHUBAYEV, K.Sh.

The city of Stalinabad; brief report on economic-geographical features. Trudy AN Tadzh.SSR 99:79-101 '58.
(MIRA 13:4)

(Stalinabad—Physical geography)
(Stalinabad—Economic conditions)

31060
S/166/61/000/006/001/010
B112/B138

Dzhurayev, T. D.

TITLE: On equations of the mixed-composed type

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 6, 1961, 3 - 14

TEXT: The author investigates the equation $L \partial u / \partial x = 0$, where $L = \partial^2 / \partial x^2 + \text{sgn } y \, \partial^2 / \partial y^2$ is the Lavrent'yev operator. This equation is considered in a region $D = D_1 + D_2$, where D_1 lies in the semi-plane $y > 0$ and contains the interval $A(-1,0)$, $B(1,0)$ of the x-axis, and where D_2 is the triangle A, B, $C(0,-1)$. In the domain D, the equation $L \partial u / \partial x = 0$ is of the mixed-composed type (composed means that the equation has real as well as complex characteristics). Five boundary value problems for this equation are solved explicitly. There are 6 references: 3 Soviet and 3 non-Soviet.

ASSOCIATION: Institut matematiki im. V. I. Romanovskogo AN UzSSR (Institute of Mathematics imeni V. I. Romanovskiy AS Uzbekskaya SSR)

Card 1/2

AP3004302   S/0199/63/004/004/0775/0787

AUTHOR: Dzhurayev, T. D.

TITLE: On certain boundary problems for equations of a mixed-composite type

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 4, no. 4, 1963, 775-787

TOPIC TAGS: boundary value problem, mixed composite type equation, regular solution, solution existence, solution uniqueness

ABSTRACT: Three boundary-value problems are studied for the equation

$$L\frac{\partial v}{\partial x} = 0, \tag{1}$$

where

$$L = \frac{\partial^2}{\partial x^2} + \operatorname{sgn} y\frac{\partial^2}{\partial y^2}.$$

Problem A. To find in the domain D_1 (simply connected domain in the plane $y>0$ bounded by the straight line segment $A(0,0)B(1,0)$ and the

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AP3004302

smooth Jordan arc σ with its ends at A and B) a regular and continuous solution $w(x,y)$ of equation (1) satisfying the boundary conditions

$$W|_\sigma = f, \quad w|_{AB} = \tau \frac{\partial}{\partial}|_{\sigma_1} = \phi \tag{2}$$

where n is the intrinsic normal of the arc σ_1 (the portion of the arc AB = σ between A and the point of tangency of σ with the straight line $y = h$) and f,τ,ϕ are given continuous functions for which $f(0) = \tau(0)$ and $f(1) = \tau(1)$. Problem B. To find in the domain D_2 (bounded by the x-axis, two straight lines AC:$x + y = 0$ and CB:$x - y = 1$) a regular solution $w(x,y)$ of equation (1) which is continuous in the closed domain $\bar{D}_2$ and satisfies the conditions

$$w/AB = \tau, \quad w/AC = \psi_1, \quad \frac{\partial w}{\partial n}/AC = \psi_2, \tag{3}$$

where τ, ψ_1, ψ_2 are given twice continuously differentiable functions and $\tau(0) = \psi_1(0); \tau^1(0) = \psi_1^1(0) = \sqrt{2} \psi_2(0)$. Problem C (mixed problem). To find the solution $w(x,y)$ having the following properties:

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AP3004302

1) regular in the domain D (domain combined of D_1 and D_2 including the open segment AB) at $y \neq 0$; 2) continuous and having continuous partial derivatives in the closed domain $\bar{D}$ except at the point A; 3) satisfying the conditions

$$v/\sigma = f, \quad \frac{\partial v}{\partial n}/\sigma_1 = f_1, \quad w/AC = \psi_1, \quad \frac{\partial w}{\partial n}/AC = \psi_2, \qquad (4)$$

where f, f_1 are given continuous functions, ψ_1, ψ_2 are given twice differentiable functions and $f(0) = \psi_2(0)$. Taking $w(x,y) = n(x,y) + w(y)$, where $n(x,y)$ is a regular solution of the equation $Lu = 0$ and $w(y)$ is an arbitrary twice continuously differentiable function and assuming that σ is a semicircle, problems A and C are reduced to the determination in the domain D_1 of the harmonic function $n(x,y)$ satisfying certain conditions. The existance of the solution $w(x,y)$ is proved for problems A and C and the uniqueness of the solution for problems B and C. Orig. art. has: 54 formulas.

ASSOCIATION: none

Card 3/4 3

DZHURAYEV, T.D.

Theory of the equation $\frac{\partial}{\partial x}(\Delta u) = 0$. Izv. AN Uz. SSR Ser. fiz.-mat. nauk 8 no.3:5-10 '64.

1. Institut matematiki imeni V.I. Romanovskogo AN UzSSR.

(MIRA 17:10)

GORSHKOV, G., tekhnik (Sverdlovsk); GRISHCHENKO, E. (Aktyubinsk);
GRANOVSKIY, L., instruktor; IVANNIKOV, A.; BERDYUGIN, V., gornyy
inzh.; KIL'DIBEKOV, V.; GORELIK, M., inzh.; ATKOCHAYTIS, Ye.
[Atkocaitis, E.] (Vil'nyus); CHERTILIN, V. (Bavly, Tatarskaya ASSR);
DZHURAYEV, U. (Fergana)

Exchange of news and practice. Izobr.i rats. no.2:18-19 F '62.
(MIRA 15:3)
1. Ural'skiy zavod tyazhelogo mashinostroyeniya (for Gorshkov).
2. Predsedatel' soveta Vsesoyuznogo obshchestva izobretateley i
ratsionalizatorov remontno-mekhanicheskogo zavoda "Bol'shevik", g.
Aktyubinsk (for Grishchenko). 3. TSentral'nyy Sovet Vsesoyuznogo
obshchestva izobretateley i ratsionalizatorov (for Granovskiy).
4. Predsedatel' oblastnogo soveta Vsesoyuznogo obshchestva izobretateley
i ratsionalizatorov (for Ivannikov). 5. Vneshtatnyy konsul'tant oblastnogo
konsul'tatsionnogo punkta Vsesoyuznogo obshchestva izobretateley
i ratsionalizatorov, g. Kemerovo (for Berdyugin). 6. Zaveduyushchiy
otdelom promyshlennosti gazety "Leninskiy put'", g. Slobodskoy
Kirovskoy obl. (for Kil'dibekov). 7. Otdel kapital'nogo stroitel'-
stva predpriyatya teplovykh setey upravleniya energetiki Soveta
narodnogo khozyaystva BSSR, g. Minsk (for Gorelik).
(Technological innovations)

UL'YANINSKIY, L.S.; DZHURAYEVA, L.A.

Respiratory arrhythmia and respiratory atrioventricular block in
hypercapnia and hypoxia. Fiziol.zhur. 51 no.3:340-349 Mr '65.

(MIRA 18:5)

1. Laboratoriya klinicheskoy fiziologii Instituta normal'noy i
patologicheskiy fiziologii AMN SSSR, Moskva.

AMINOVA, R.Kh., kand. ist. nauk; TETENEVA, L.G., kand. ist. nauk;
    ALIMOV, I.A.; DMITRIYEV, G.L.; DZHAMALOV, O.B., doktor
    ekon. nauk, redaktor ; DZHURAYEVA, T., kand. ist. nauk,
    red.; ATFENYUK, S.Ya., red.; DANILOV, V.P., glav. red.;
    BELOV, G.A., red.; GRIGOR'YAN, L.L., red.; IBRAGIMOV, Z.I.,
    red.; IVNITSKIY, N.A., red.; IL'YASOV, S.I., red.; KAKABAYEV,
    S.D., red.; KAMENSKAYA, N.V., red.; KRAYEV, M.A., red.;
    KULIYEV, O.K., red.; MAKHARADZE, N.B., red.; OBICHKIN, G.D.,
    red.; PLESHAKOV, S.T., red.; RADZHABOV, Z.I., red.; SELEZNEV,
    M.S., red.; TURSUNBAYEV, A.B., red.; FEDOROV, A.G., red.;
    SHEPELEVA, T.V., red.; PATLAKH, B., red.; MASHARIPOVA, D.,
    red.; BULATOVA, R., red.; GOR'KOVAYA, Z.P., tekhn. red.;
    KARABAYEVA, Kh.U., tekhn. red.

[Socialist reorganization of agriculture in Uzbekistan]
Sotsialisticheskoe pereustroistvo sel'skogo khoziaistva v Uz-
bekistane, 1917-1926 gg. Pod red. O.B.Dzhamalova. Tashkent,
Izd-vo Akad. nauk UzSSR. Vol.1. 1962. 792 p.   (MIRA 16:5)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut istorii i
arkheologii.
                (Uzbekistan--Agriculture)

L 36491-66   EWP(j)/T   RM/DS

ACC NR: AP6027084   SOURCE CODE: UR/0079/65/035/010/1866/1871

AUTHOR: Zhako, Ya.; Al'mashi, L.; Dzhurdzhu, M.; Khants, A.

ORG: University im. Babes-Bolyai; Institute of Chemistry, ARPR, Cluj

TITLE: Study of the physicochemical properties of O,O-dialkyl esters of
arylsulfonamidophosphoric and -thiophosphoric acids. Part 1: Acidity constants
of certain O,O-diethyl esters of arylsulfonamidothiophosphoric acids in ethanol-
water mixtures, and applicability of the Hammett equation of these compounds

TOPIC TAGS: phosphoric acid, ester, ethanol, solution acidity, dissociation, EMF,
electrode potential, buffer solution, proton

ABSTRACT: Potentiometric measurements at 20°C were used to determine
the dissociation constants of O,O-diethyl esters of arylsulfonami-
dothiophosphoric acids in ethanol-water mixtures containing 90, 70,
and 50 vol% ethanol. A transference cell was employed, and the
emf of the following concentration cell was measured in various
solvents:

$$\text{Pt} \mid H_2, \; HCl \, (0.01 \, m.) \mid HX \, (c_1), \; NaX \, (c_1), \; H_2 \mid Pt$$

The measurements were actually made indirectly: the potential of
the hydrogen electrode was measured first in HCl, then in the HX-NaX

Card 1/2   UDC: 547.26-118:541.132.3/4

L 36491-66

ACC NR: AP6027084

buffer mixture, in the same solvent, but relative to a saturated calomel electrode. The emf of the above cell was obtained as the difference of these two potentials. To calculate the activity of the hydrogen ions from the emf of the cell, use was made of the Nernst formula. The Izmaylov equation was found to apply to the variation in strength of the arylsulfonamidothiophosphoric acids as a function of solvent composition, and the proportionality constant of this equation was calculated for all the derivatives of the acids. The pK of the acids and the proportionality constant were found to be linear functions of the constant σ of Hammett's equation, i. e., this equation is applicable to the compounds studied. Values of the reaction constants for the acidic dissociation indicate that the substituents exert a greater influence on the dissociation of the proton in the case of the compounds under consideration than in the case of benzoic acids. Orig. art. has: 1 figure, 2 tables and 4 formulas. [JPRS: 36,328]

SUB CODE: 07 / SUBM DATE: 27Mar64 / ORIG REF: 002 / OTH REF: 007

Card 2/2 MLP

DCHUPOZIN, V. Cand Agr Sci -- (diss) "Assessment of ~~structure regions for~~ the current increase of plantings" Mos, 1957. 1° pp 21 cm. (Min Higher Ed USSR, Mos Forestry Engineering Institute), 110 copies

(KL, 20-57, 95)

45

USSR./ Forestry. Forest Management.   K

Abs Jour   : Ref Zhur - Biologiya, No 18, 1958, No. 82202

Author   ¦ Dzhurdzhu, V.
Inst   : Not given
Title   ¦ Determination of the Current Growth of Plantations

Orig Pub   ¦ Lesn. kh-vo, 1957, No 9, 27-32

Abstract   : Two methods are suggested for the determination of
              current growth: 1) method of repeated counting without
              felling of test trees, permitting an increase in accuracy
              of ±3 - 5%; 2) simplified method based on the close
              correlation between growth according to an average height
              and age (correlative ratio 0.92 - 0.94). Application of
              a forest logarithmic scale rule constructed by the
              author in conjunction with the Bitterlich instrument
              allows the current growth to be determined according to
              the mass with an entirely insignificant expenditure of

Card 1/2

USSR / Forestry. Forest Management.   K

Abs Jour   : Ref Zhur - Biologiya, No 18, 1958, No. 82202

           time and money with an accuracy of 10 - 12% and relia-
           bility of 0.683. Tables of growth percent are presented
           according to the species height for pines, firs, birch,
           and aspen of tall-standing plantations. -- A. Yana

Card 2/2

20

RUMANIA / Forestry.   Forest Management.   K

Abs Jour: Ref Zhur-Biol., No 7, 1958, 29564.

Author   : Dzhurdzhu, V.
Inst   : Not given.
Title   : Rumanian Supply Tables.
           (O rumynskikh tablitsakh zapasa)

Orig Pub: Rev. padurilor, 1957, 71; No 3, 167-171.

Abstract: Recommendations are given on improving, cor-
          recting and supplementing the tables in regard
          to the growing demands of forest valuation.

Card 1/1

YUGOSLAVIA / Chemical Technology. Food Industry. H

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75491.

Author : Dzhurichin.
Inst : Not given.
Title : Modern Principles of Grain Storage.

Orig Pub: Zast. mater., 1957, 5, No 9-10, 362-367, 377.

Abstract: Modern methods for the storage of grain are des-
cribed, mostly from data furnished by the Sov-
iet authors.

Card 1/1

ZHIRNOV, N.I., kand.tekhn.nauk ; DZHURIKHIN, S.P., inzh.

Operating peak load boiler PTVM-50-1 on mazut. Gor. khoz. Mosk.
36 no.5:37-40 My '62. (MIRA 15:7)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Boilers)

LETONMYAKI M.N.; KOMSHILOV, N.F.; DZHURINSKAYA, N.G.

Composition of the organic part of black liquor. Izv.Kar. i
Kol'.fil.AN SSSR no.4:138-145 '58.   (MIRA 12:5)

1. Laboratoriya lesokhimii Karel'skogo filiala AN SSSR.
                (Woodpulp industry)

5(2,3)
AUTHORS:
Petrov, A. D., Corresponding Member, AS USSR, Mironov, V. F., Dzhurinskaya, N. G.

TITLE: Addition of Trichlorogermane to Acetylene, Olefines and Their Derivatives in the Absence of Catalysts

PERIODICAL:

ABSTRACT:
On the basis of the publication survey (Refs 1-4) and the publications by V. A. Ponomarenko and G. Ya. Vzenkova (Ref 6), the authors state that - contrary to other assertions - the addition mentioned in the title proceeds vigorously and under considerable evolution of heat, immediately after mixing the components already at room temperature without any catalysts and initiators. This refers to olefines (1,2) (from ethylene to octene-1), acetylene (3), acrylonitrile (4), allyl acetate (8), allyl chloride (5) and methallyl (6), even vinyl chloride and β-chloro-vinyl-trichloro-silane (9,10). A similar addition of trialkyl silanes to methyl acrylate described by A. D. Petrov and S. I. Sadykh-Zade (Ref 5) is mentioned. Table 1 indicates the yields and properties of the compounds

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Addition of Trichlorogermane to Acetylene, Olefines and Their Derivatives in
the Absence of Catalysts   SOV/20-128-2-22/59

obtained: γ-Cyano-ethyl-trichlorogermane, γ-chloro-propyl-tri-
chlorogermane, γ-chloro-isobutyl-trichlorogermane, 1(trichloro-
germyl)-2(trichlorosilyl)-ethane, 1,2-bis-(trichlorogermyl)-
ethane, ethyl-trichlorogermane, n-octyl-trichlorogermane,
γ-(trichlorogermyl)-propyl acetate. Sometimes, the yields of
the addition products were higher than those indicated in
respective publications for addition with catalysts. As is
known (Ref 7), the addition of silicon chloroform to the sub-
stances indicated in table 1 mostly proceeds only in the pre-
sence of catalysts. Without a catalyst, it is only possible ex-
ceptionally and under severe conditions. Thus, it becomes
evident that the trichlorogermane, in a wide range of addition
reactions, is much more active than the trichlorosilane. There
are 1 table and 7 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy
of the Academy of Sciences, USSR)

SUBMITTED: May 28, 1959
Card 2/2

86484

S/062/60/000/011/015/016
B013/B078

5.3770

AUTHORS: Mironov, V. F., Dzhurinskaya, N. G., Petrov, A. D.

TITLE: Reaction of Allyl Halides With Trichlorogermane

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh
             nauk, 1960, No. 11, p. 2066

TEXT: In this "Letter to the Editor" the authors report on the reac-
tion of allyl halides with trichlorogermane. A new reaction of trichloro-
germane with allyl bromide and allyl chloride was discovered, which
leads to the formation of allyl trichlorogermane according to formu-
la (1): $CH_2 = CHCH_2X + HGeCl_3 \rightarrow CH_2 = CHCH_2GeCl_3 + HX$ . . .
Allyl trichlorogermane has been first obtained by direct synthesis
from allyl chloride and germanium (Ref.1). Its properties are:
Boiling point 155.5°C (756 mm), n_D^{20} 1.4938, d_4^{20} 1.5480. $HGeCl_3$ is known
to differ from $HSiCl_3$ by its higher reactivity. With a simple deduction
at room temperature it adds to the multiple bonds of various olefins

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Reaction of Allyl Halides With Trichlorogermane   S/062/60/000/011/015/016
86484
B013/B078

and their derivatives even without a catalyst (Refs. 2 and 3):
$CH_2=CHCH_2Cl + HGeCl_3 - ClCH_2CH_2CH_2GeCl_3$ . . . (2). When $HGeCl_3$ was
added to allyl bromide the reaction proceeded, however, according to
formula (1). Thus, allyl trichlorogermane with a yield of 37% was ob-
tained from allyl bromide. Also, when $HGeCl_3$ was added to allyl chloride
the reaction proceeded according to formula (1) provided this was done
in ether. The yield in this case amounts to 17%. It is noted that a
similar reaction of $HSiCl_3$ with allyl chloride has been known in tech-
nical literature (Refs. 4 and 5); however, it takes place only at very
high temperatures ($600^{\circ}C$) in the gaseous phase, whereas the above-de-
scribed reaction took place in the liquid phase at room temperature.
There are 5 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo
               Akademii nauk SSSR (Institute of Organic Chemistry
               imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: April 26, 1960

Card 2/2

5.3700(B)
~~5(2), 5(3)~~

AUTHORS:

Mironov, V. F., Dzhurinskaya, N. G.,
Petrov, A. D., Corresponding Member, AS USSR

TITLE:

Addition of HGeCl$_3$ to Halogen Substituted Ethylene Derivatives.
Dehydrochlorination of α,β-Dichloroethyltrichlorogermane

PERIODICAL:

ABSTRACT:

The authors investigated the addition of HGeCl$_3$ to various
chlorine substituted derivatives of ethylene (from ClCH=CH$_2$ to
Cl$_2$C=CCl$_2$), which hardly add HSiCl$_3$. In the present paper, the
authors proved, that trichlorogermane, however, adds to di-
chloro-, trichloro-, and tetrachloroethylene in a completely
uncatalyzed reaction. The addition proceeds under slight
spontaneous heating. If vinyl chloride is bubbled through HGeCl$_3$
the addition is accompanied by more intense spontaneous heat-
ing. The most astonishing result obtained was that no α-, but
only β-chloroethyltrichlorogermane (33%) was formed (see

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68814

Addition of $HGeCl_3$ to Halogen Substituted Ethylene
Derivatives. Dehydrochlorination of α, β-Dichloro-
ethyltrichlorogermane

S/020/60/131/01/027/060
B011/B006

scheme). In this connection, the sequence of the addition of
$HSiCl_3$ to <u>vinyl chloride</u> was investigated. It was found that
$HSiCl_3$ and CH_3Cl_2SiH likewise, can only be added to vinyl
chloride by reacting in an autoclave, despite the presence of
a catalyst as highly active as chloroplatinic acid, yielding
only 6% α-chloroethyltrichlorosilane (see scheme). The authors
have thus proved that the sequence observed in the addition of
$HGeCl_3$ to vinyl chloride is different from the one in tri-
chlorosilane addition. The reaction mechanisms are evidently
different in the two cases. The dehydrochlorination of α, β-
dichloroethyltrichlorogermane was effected both by means of
quinoline and aluminum chloride. The authors previously
(Refs 5,6) investigated a similar dehydrochlorination by the
two latter reagents for an analogous organosilicon compound,
$Cl_3SiCHCl \cdot CH_2Cl$. Now it was found that the rules observed then

Card 2/4   are also valid in the present case, i.e. that quinoline splits
off the β-chlorine atom, and aluminum chloride the α-chlorine

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Addition of HGeCl$_3$ to Halogen Substituted Ethylene
Derivatives. Dehydrochlorination of α,β-Dichloro-
ethyltrichlorogermane

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B011/B006

atom (see scheme). In the case of α,β-dichloroalkyltrichloro-
silanes the mechanism of dehydrochlorination by means of
aluminum chloride was formerly (Refs 7,8) explained by re-
arrangement of the β-carbonium ion formed, involving a shift of
the trichlorosilyl group from the α-carbon atom to the β-carbon
atom. The authors believe that a similar rearrangement mechanism
occurs in the present case (see scheme). Experiments to split
off HCl from Cl$_3$SiCH$_2$CHClGeCl$_3$ with the aid of quinoline only
resulted in β-decomposition (see scheme). After some hours,
α-chlorovinyltrichlorogermane autopolymerizes to a milky,
opaque solid (Refs 6,9). Only three of the chlorine atoms of
β-chlorovinyltrichlorogermane are hydrolyzed by titration with
0.1 N alkali solution. Decomposition accompanied by liberation
of acetylene (Ref 11) does not occur in this case. The properties
of the five germanium compounds synthesized for the first time
are listed in table 1. L. A. Leytes took the spectra of these
compounds. There are 1 table and 13 references, 10 of which

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Addition of $HGeCl_3$ to Halogen Substituted Ethylene   S/020/60/131/01/027/060
Derivatives. Dehydrochlorination of α, β-Dichloro-   B011/B006
ethyltrichlorogermane

68814

              are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR
              (Institute of Organic Chemistry of the Academy of Sciences,
            USSR)

SUBMITTED: November 23, 1959
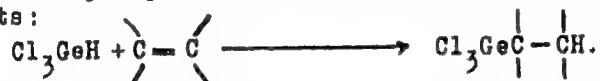
Card 4/4

5·3700   25315

AUTHORS: Dzhurinskaya, N. G., Mironov, V. F., and Petrov, A. D.,
            Corresponding Member AS USSR

TITLE: Addition of germanium hydrides to unsaturated compounds

TEXT: The authors had already found (Ref. 1: DAN, 128, 302 (1959);
Ref. 2: DAN, 131, 98 (1960)) that trichloro germane $HGeCl_3$ can be added
to practically any unsaturated compound without activation and without
catalysts:

$$Cl_3GeH + \overset{\diagdown}{\underset{\diagup}{C}} = \overset{\diagup}{\underset{\diagdown}{C}} \longrightarrow Cl_3Ge\overset{|}{\underset{|}{C}} - \overset{|}{\underset{|}{C}}H.$$

Hence, they conclude that $HGeCl_3$ in this reaction has a higher reactivity
than $HSiCl_3$ which can only be added under harder conditions and in the
presence of catalysts. In the present paper, the authors describe the
addition of $HGeCl_3$ to a series of other unsaturated compounds (Table 1).

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Addition of germanium hydrides to... 25315

They found that the production of propyl trichloro germane $n-C_3H_7GeCl_3$ by this method is much easier than the "direct" or organomagnesium synthesis. The addition of $HGeCl_3$ to cyclopentadiene is vigorous whereas $HSiCl_3$ could not be added even by boiling in the presence of H_2PtCl_6. To determine the relative reactivity of hydrides other than Cl_3MH, the authors produced $(C_2H_5)_3MH$ (with M = Si, Ge, and Sn) by reducing the corresponding $(C_2H_5)_3MHal$ with $LiAlH_4$. The synthesis of $(C_2H_5)_3GeH$ by the action of C_2H_5MgBr on $HGeCl_3$ was not successful; mainly $(C_2H_5)_4Ge$ formed whereas high yields of $(C_2H_5)_3SiH$ were obtained by a similar method. The treatment of $(C_2H_5)_3MH$ with 1 N alcoholic KOH solution caused the quantitative escape of hydrogen at 20°C in a Tserevitinov device [Abstracter's note: Device not stated.] only with silicon and tin hydrides. The liberation of H_2 from triethyl germane was impossible, even at 80°C. All three hydrides $(C_2H_5)_3MH$ are added to propargyl alcohol and acrolein. Since this reaction

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Addition of germanium hydrides to... 25315

S/020/61/138/005/015/025
B103/B215

is very vigorous with triethyl stannane, the authors could not isolate any monomers; they only produced polymers. Triethyl germane, like $(C_2H_5)_3SiH$, added to propargyl alcohol only with a catalyst (H_2PtCl_6), thus yielding γ-(triethyl-germyl)-allyl alcohol: $(C_2H_5)_3GeH$ + $HC \equiv CH_2OH \longrightarrow (C_2H_5)_3GeCH = CHCH_2OH$. The only difference found between $(C_2H_5)_3GeH$ and $(C_2H_5)_3SiH$ lay in their interaction with allyl alcohol.

Triethyl silane only forms allyl hydroxy-triethyl silane, whereas triethyl germane already adds to the double bond thus forming γ-(tri-ethyl-germyl)-propanol: $CH_2 = CHCH_2OH + (C_2H_5)_3GeH \longrightarrow (C_2H_5)_3GeCH_2CH_2OH$.

These two hydrides are also added to two different reaction centers of acrolein. Triethyl silane adds in positions 1-4. The authors repeated the experiment of M. Lesbre and I. Satge (Ref. 10: C. R., 247, No. 4, 471 (1958)) and convinced themselves that triethyl germane is not easily added to acrolein and probably forms the corresponding aldehyde. The authors synthesized organogermanium carbosubstituted alcohols. Finally, they obtained the first organogermanium mercaptan:

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Addition of germanium hydrides 25315 to...

β-(γ-(trimethyl-germyl)-propyl-mercapto)-propionitrile. The Raman
spectra were taken by L. A. Leytes. Among the compounds obtained, the
authors also mention β-(trichloro-germyl)-ethyl acetate, β-(trimethyl-
germyl)-ethanol, γ-(triethyl-germyl)-propargyl alcohol, γ-(trimethyl-
germyl)-propyl thioacetate, and γ-thiol-propyl-trimethyl germane. There
are 2 tables and 10 references: 5 Soviet-bloc and 5 non-Soviet-bloc.
The three references to English-language publications read as follows:
E. G. Rochow, R. Didchenko, R. C. West (Ref. 3: J. Am. Chem. Soc., 73,
5486 (1951)); H. H. Anderson (Ref. 4: J. Am. Chem. Soc., 79, 326 (1957));
A. L. Allred, E. G. Rochow (Ref. 6: J. Inorg. and Nucl. Chem., 5, 269
(1958)).

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
                nauk SSSR (Institute of Organic Chemistry imeni
                N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: February 22, 1961

Card 4/7

DZHURINSKAYA, N.G.

MIRONOV, V.F., DZHURINSKII, N.N.G.

A new preparative method for the synthesis of germanium-containing monomers.

Report submitted for the 12th Conference on high molecular weight compounds. devoted to monomers, Baku, 3-7 April 62

S/062/62/000/003/010/014
B117/B144

AUTHORS: Mironov, V. F., Dzhurinskaya, N. G., Gar, T. K., and
             Petrov, A. D.

TITLE: Reactions of allyl halogenides and benzyl chloride with
             germanium hydrides

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh
             nauk, no. 3, 1962, 460-465

TEXT: The recently discovered reaction (Izv. AN SSSR. Otd. khim. n. 1960,
2066) of trichlorogermaniumhydride with halogenides of the allyl type, in
which halogen is substituted by the trichlorogermyl group, was studied in
detail. The reactions of allyl iodide and methallyl bromide with
trichlorogermaniumhydride were found to proceed exclusively as condensa-
tion. Methallyl chloride, similar to allyl chloride, requires, of course,
the presence of ether, since essentially without it an addition takes
place. In the reactions investigated, high-boiling by-products were
always formed which may also contain products of the addition of the second
$HGeCl_3$ molecule at alkenylgermaniumhalogenides. Besides condensation,

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Reactions of allyl halogenides and...

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which only occurs in the presence of H_2PtCl_6, other reactions also take place during the reaction of trialkylgermaniumhydrides with allyl halogenides. An experiment to extend the condensation also to saturated and aromatic halogenides was without success so far. With benzyl chloride and tertiary butyl chloride, however, this reaction proceeded successfully, good yields in benzyl trichlorogermaniumhydride and tertiary butyl-trichlorogermaniumhydride being obtained. Raman spectra of the new substances whose properties are listed in Table 2 correspond to standards. It was pointed out finally that no similar reactions exist in the chemistry of organic compounds of other elements of group IV. L.A.Leytes is thanked for conducting the spectral analyses. There are 2 tables and 7 references: 6 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: A. J. Vogel, W. T. Cresswell, J. Leicester, J. Phys. Chem. 58, 174 (1954).

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: October 20, 1961
Card 2/4

DZHURINSKAYA, N. G.

Dissertation defended for the degree of <u>Candidate of Chemical Sciences</u>
at the Institute of Organic Chemistry imeni N. D. Zelinskiy in 1962:

"Reaction of Germanium Hydrides with Unsaturated Compounds."

Vest. Akad. Nauk SSSR.   No. 4, Moscow, 1963, pages 119-145

AUTHORS: Mironov, V. F., and Dzhurinskaya, N. G.

TITLE: Conjugation effect in organogermanium compounds

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk,
              no. 1, 1963, 75 - 82

TEXT: The reactions of β-chloro-vinyl-trichloro germane (I) and of the
homologous series $Cl_3Ge(CH_2)_nCl$, n = 1, 2, 3, were studied to clarify the
analogous behavior of organosilicon and -germanium β-chloro derivatives.
It was found that I with CH_3MgBr formed β-chloro-vinyl-trimethyl germane (II),
b.p. $134^\circ C$/756 mm Hg, n_D^{20} 1.4600, d_4^{20} 1.1844, yield 65%; like the corres-
ponding silicon compound, it suffered no β-degradation as it occurs with
the corresponding ethyl compounds. 1-trimethyl-silyl-2-trimethyl-germyl
ethylene, b.p. 158-160$^\circ C$/748 mm Hg, n_D^{20} 1.4460, d_4^{20} 0.9558, was synthesized
from II with $ClSi(CH_3)_3$. The compounds of the series $Cl_3Ge(CH_2)_nCl$ also

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